

Investigation of the effects of Ramadan and intermittent fasting on material and spiritual health

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Cite this article: Tüzün İ, Çavuş UY. Investigation of the effects of Ramadan and intermittent fasting on material and spiritual health. *Intercont J Int Med.* 2024;2(1):21-25.

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Received: 17/02/2024

Accepted: 24/02/2024

Published: 29/02/2024

ABSTRACT

One of the most important problems for humanity is maintaining health. It is much easier and more cost-effective to protect it than to fix it after it has deteriorated. Modern medicine has also caught up with this point in recent years and has started to give more importance to preventive medicine practices, as Islam has been emphasizing for 1400 years. For this reason, preventive medicine practices such as intermittent fasting and eating less, which are recommended both in Islam and in scientific studies, are very important in terms of protecting health, reducing health expenditures and the workload of hospitals. In this study, we have compared the Qur'an and hadiths, which are the main sources of Islam, with the current medical literature datas. We have shown that they both point to the same points and make recommendations in the same parallel, such as intermittent fasting. With this study, which is the first and original in this respect, we aimed to contribute to the protection and improvement of both individual and social health and to reduce health expenditures and the workload of hospitals.

Keywords: Ramadan, intermittent fasting, spiritual health

INTRODUCTION

One of the greatest treasures of humanity is health, and one of the most important problems is to protect it. It is much easier and more cost-effective to protect health than to correct it after it has deteriorated. For this reason, preventive medicine and health measures are much more important than diagnosis and treatment medicine, which are efforts to correct health after it has deteriorated. Modern medicine has also caught up with this important point in recent years and has started to attach more importance to preventive medicine, as Islam has done for 1400 years. Scientific studies are also focusing more and more on this subject.

Fasting, one of the most important acts of worship in Islam, is of great importance in terms of preventive medicine. The Qur'an states: "O you who believe! Fasting has been enjoined upon you on the numbered days, as it was enjoined upon those before you, that you may beware. (...) "Ramadan is the month in which the Qur'an was sent down as a guide to mankind, and as clear proofs of the truth and the difference between the truth and the error. So let those of you who realize the month of Ramadan fast in it."¹

The Prophet also said: "Islam is based on five things: To testify that there is no god but Allah and that Muhammad is the Messenger of Allah, to pray, to pay zakat, to perform Hajj, and to fast in Ramadan."²

The practice of fasting, which lasts for one month a year, has many worldly and ethereal benefits. In this article, we will first

present some hadiths about the importance of fasting, and then we will focus on the benefits of fasting for human psychology (spirituality) and physical health based on both hadiths and modern medical data.

A. THE IMPORTANCE OF FASTING

Some hadiths about the importance of fasting in Ramadan are as follows:

It was narrated from Abu Hurayrah (r.a) that the Messenger of Allah (s.a.w.) said: "Allah azza wa jalla said: "All deeds are for the son of Adam, except fasting, which is for me. Fasting is a shield (against Hellfire). When one of you is fasting, let him not speak ugly words or shout. If someone curses him or wants to fight him, let him say, "I am fasting, I am fasting." I swear by Allah, in Whose might is the soul of Muhammad, that the smell of the mouth of the fasting person is more pleasant in the sight of Allah than the smell of musk. There are two joys for the fasting person. When he breaks his fast, he rejoices in his fast. When he meets his Lord, he rejoices in his fast (the reward for fasting)."³ In a narration of Muslim, it is narrated that "The reward for every good deed is multiplied for the son of Adam from ten times to seven hundred times. Allah Almighty said, "Except fasting. Surely fasting is for me. I will give its reward."

It was narrated from Abu Said (r.a) that the Messenger of Allah (s.a.w.) said:

"If a servant fasts for a day in the way of Allah, Allah will remove his face from the fire of Hell by a distance of seventy years because of that one day's fast."⁴

One of the Companions, Abu Umama (r.a), said: "O Messenger of Allah! Order me a deed!" He said, "Fast, for there is no worship equal to fasting." I again said, "O Messenger of Allah! I said, "Order me a deed!" He said, "Fast, for there is no worship equal to fasting. I said again, "O Messenger of Allah! I said again, "Order me a deed!" He said, "Fast, for there is no worship equal to fasting. Later on, the narrators narrated that Abu Ummamah's house's stove did not work during the daytime for food, and that he spent all his days fasting, and would only break his fast if there were guests. It is also said that his wife and servant fasted.⁵

It was narrated from 'Abdullah b. 'Umar (r.a) that the Messenger of Allah (saw) said:

"The Qur'an and fasting will intercede for the servant on the Day of Resurrection. Fasting says, "My Lord! I have restrained him from eating and lustful desires, so grant me the right to intercede for him!" And the Qur'an says, "I restrained him from sleeping at night, so grant me the right to intercede for him! And they both intercede (Allah accepts their intercession)."⁶

B. EFFECTS OF RAMADAN FASTING ON MENTAL HEALTH

Fasting is first and foremost an act of worship. However, there are many worldly and ethereal benefits in this act of worship. The worldly benefits can be divided into two parts: benefits for the soul and benefits for the body. Here, we will first focus on some of the spiritual benefits, and then on the physical benefits to the human body.

1. Fasting is a Training of Patience and Willpower

Fasting teaches people patience and strengthens their willpower. Athletes improve their bodies through constant training. A weightlifter develops his arm muscles because he constantly lifts heavy barbells. An athlete who is constantly practicing running develops leg muscles. A Muslim who fasts also practices patience and learns to be patient. All sins are actually committed because of impatience. A person who gets used to patience learns to discipline his lower self. Someone who abstains even from halal things during fasting gains a sense of resistance against haram. Fahrettin al-Razi, commenting on the verse that explains that fasting leads to taqwa, says: "If people are very fond of something, it is very difficult to stay away from it. In the life of this world, the things that people are most in love with - compared to other things - are eating, drinking and marriage. If it is easy for you to give up eating, drinking and marriage out of fear of Allah, it will be easier and lighter for you to give up other things out of fear of Allah."⁷

Because of these characteristics, the Prophet (s.a.w.) said, "Fasting is half of patience."⁸ Another hadith says, "Patience is half of faith."⁹ Therefore, it is possible to say that fasting is ¼ of faith.

2. Fasting and Lower Self-control

Hunger cuts the lust of the lower self and breaks the inclination towards the desires of the soul. Eating too much, on the other hand, causes the lust to be aroused and the limbs to turn towards sin. As a matter of fact, our Prophet (s.a.w.) said, "O community of young people! Get married if you are able!

For marriage is more conducive to closing the eyes to forbidden things and protecting against fornication. And those who cannot afford marriage, fast! Fasting will remove his lust."¹⁰ If a person eats a lot of food, his lower self becomes aroused and he goes to sin. Even if he does not sin for fear of Allah, he cannot control his eyes. Even if he can control his eyes, his mind is occupied with bad things. Sometimes he cannot stop thinking about immoral things even in prayer.

Imam al-Ghazali is of the opinion that fasting will prevent all evil desires, not just lust. He states: "Eating too much food is the mother (of bad morals). Because all lusts come from the stomach. For example, eating too much increases sexual desires tendency towards women. When the desire to eat a lot and get married overcomes a person, the love of property and fondness for riches arises from this. Because possessing these two things is only possible through property and riches. And from the love of wealth comes the love of authority and position. Because without authority and position, it is difficult to earn property and become rich. When these two things are acquired, many evils arise from them, such as arrogance, envy, hatred, enmity and so on. The source of all these is the stomach."¹¹ Therefore, fasting is a means to save people from all these spiritual diseases.

Many Sufis have drawn attention to this feature of fasting. Imam Sharani said, "When the lower self is hungry, it becomes like a weak child, and when it is full, it becomes like a ravaging lion."¹²

3. Hunger and Science

Hunger causes the heart to become pure, intelligence and clairvoyance to open. Eating too much causes the heart to become dull and the intellect to diminish. Abdulkarim al-Qushayrî said, "Hunger has become an attribute of Sufis. Hunger is one of the pillars of jihad against the nafs. The Sufis gradually accustomed themselves to starvation and restrained themselves from eating and drinking. Thus, they found the fountains of wisdom in hunger. There are many life stories narrated from them on this subject."¹⁴

Abū Suleiman Darānī said, "Continue to starve, for it weakens the nafs, softens the heart, and results in heavenly knowledge." Shiblî, one of the wise men, said, "Whenever I was hungry, I saw doors opening from my heart to wisdom and signs." Lokman physician also said to his son, "O my son! When the stomach is full, the idea sleeps, wisdom becomes silent, the body becomes lazy and unable to worship." Bayazid al-Bestāmî also said, "Hunger is like a cloud. When a person is hungry, the heart showers wisdom."¹⁵

4. Effects of Fasting on Depression, Memory and Cognitive Function

Recent studies have demonstrated the positive effects of calorie restriction and fasting in the treatment of depression, and research on this subject has been accelerated. Igwe et al.¹⁶ said that, reviewed the literature on the neurobiological mechanisms associated with calorie restriction and intermittent fasting and summarized in their article published in 2021: "Factors that may play a role in the health effects of dietary manipulations such as intermittent fasting and calorie restriction include changes in free fatty acids, ketone bodies, neurotransmitters, cyclic adenosine monophosphate response element binding protein (CREB), brain-derived neurotrophic factor (BDNF), cytokines, euxin, ghrelin, leptin, reactive oxygen species and autophagy. Many of these factors are potential contributors to the improvement of symptoms of depression."

In another related article titled “ Effects of Intermittent Fasting, Caloric Restriction, and Ramadan Intermittent Fasting on Cognitive Performance at Rest and During Exercise in Adults.”, Anissa Cherif et al said that: “There are several types of intermittent fasting. One of them is Ramadan fasting, a religious practice in Islam in which healthy adult Muslims do not eat or drink during daylight hours for 1 month. Other religious practices in Islam (Sunnah of the Prophet) also encourage Muslims to practice intermittent fasting outside of Ramadan. Several cross-sectional and longitudinal studies have shown that intermittent fasting has significant effects on physical and intellectual performance, affecting various aspects of body physiology and biochemistry that may be important for athletic success. Moreover, recent findings have revealed that immunological variables also play a role in cognitive function and that intermittent fasting may influence the relationship between cytokine expression in the brain and cognitive impairments, including memory impairments.”. In this article emphasizing the physical benefits of fasting as well as its benefits on memory and other cognitive functions.¹⁷

In another important recent study, the fact that overnutrition and obesity cause both physical and mental problems is summarized as follows: “The American Medical Association recently recognized obesity as both an illness and a leading cause of preventable death and chronic disease. This association is not only linked to physical health outcomes, however, as obesity has also been extensively associated with mental illness as well. Both obesity and severe mental illness decrease quality of life and are associated with an increase in disability, morbidity, and mortality, and when they occur together, these adverse health outcomes are magnified. Despite educational campaigns, increased awareness, and improved treatment options, the high prevalence of mental illness and comorbid obesity remains a serious problem.”¹⁸

C. FASTING AND PHYSICAL HEALTH

As we have mentioned above, fasting is first and foremost an act of worship and servitude to Allah. It has a great contribution to one's spirituality. But fasting also has great benefits in terms of physical health. In fact, the Prophet (PBUH) said, “Fast and be healthy.” In another narration, it is reported that Allah revealed to Jesus (a.s.) the following: “(O Jesus!) Tell the congregation of the sons of Israel to fast for my sake. I will give health to their bodies and increase their (hereafter) rewards.”¹⁹ These narrations point to both the material and spiritual aspects of fasting and suggest that a healthy life is possible through fasting.

In recent years, many scientific studies on the benefits of fasting for human health have been conducted and presented to the public. For example, at the first international congress on “Ramadan and Health” in Casablanca in 1994, 50 comprehensive studies on the medical ethics of fasting were presented. Papers in various fields presented at this congress showed that fasting has been shown to contribute to human well-being and has not caused any deterioration in the health and basic health status of any patient. Abstaining from food at prescribed intervals has been found to be not only physically harmless to a healthy person, but also beneficial. On the other hand, it has also been stated that patients suffering from primary diabetes or serious conditions such as coronary artery disease, kidney stones, etc. are exempt from fasting and should not fast.²⁰

1. The Effect of Fasting on Obesity and Weight Control

The Prophet emphasized the importance of eating less in various hadiths. For example, a hadith on this subject is as follows: “Man has never filled a vessel more evil than his stomach. But a few morsels are enough to sustain onelower self. If he must eat, he should reserve one-third of his stomach for food, one-third for drink, and one-third for his breath.”²¹

The medical importance of the Prophet's encouragement to eat less has been confirmed by medicine today. Today, medical research shows that eating too much food is the cause of many diseases. In fact, those who eat too much are exposed to obesity. Records of international organizations such as the World Health Organization (WHO), the World Agriculture and Food Organization (FAO) and the World Food Programme (WFP) show that while about one billion people in the world suffer from hunger, many more face the problem of obesity.²²

People who are overweight and obese are at higher risk of heart attacks, strokes, high cholesterol, high blood pressure, vascular occlusion, diabetes, heart disease and cancer. Fourteen percent of cancer deaths in men and 20 percent of cancer deaths in women have been attributed to obesity.²³

Fasting and eating less is an opportunity to be healthy. Fasting can be beneficial for obesity patients by helping weight control with a regular, balanced iftar and sahur.

Although there are many articles on the subject, an article titled “The role of low-calorie diets and intermittent fasting in the treatment of obesity and type 2 diabetes” summarizes: “Intermittent fasting (IF) involves caloric restriction every day, either once or several days a week or as an extension of night fasting. The results of recent clinical trials have shown that intermittent fasting in patients with obesity can lead to reductions in body fat mass and improvements in metabolic parameters. These beneficial effects are not only due to loss of body mass, but also to activation of metabolic pathways specific to fasting conditions.”²⁴

2. Fasting and Metabolism

Ramadan fasting regulates the body's metabolic processes. Fasting rests the organs of the digestive system and directs the body to use its energy more effectively.

An article published in 2022 titled “Intermittent Fasting and Metabolic Health” emphasized the benefits of fasting on metabolism. Izzah Vasim and colleagues describe obesity as an epidemic, highlighting the ongoing pressure it places on public health outcomes, the difficulties in its treatment, and the need for new and effective approaches to weight control. They then focused on different methods, including fasting, intermittent fasting, full-day fasting and time-restricted eating as approaches to improve weight control and metabolic outcomes. They stated that with dietary programs that are only allowed for 6 hours, such as fasting for up to 18 hours, especially during the long summer months, fatty acids are converted into ketones and that stimulation of this metabolism leads to very positive metabolic effects in the body, such as improvements in dyslipidemia and blood pressure.²⁵

In their article published in 2019, Nader Lessan and Tomader Ali made the following observations from a Ramadan Fasting Perspective: “Intermittent fasting (IF) is gaining popularity as a way to lose weight. Ramadan fasting (RF) is practiced by millions of adult Muslims worldwide for one month each year. It entails a major shift from normal eating patterns to special nighttime eating. RF leads to intermittent

depletion and replenishment of liver glycogen. The early part of the fasting day (morning) is spent with carbohydrate dominance as the main fuel, but as the time to break the fast approaches in the afternoon and at sunset (iftar), lipid becomes more dominant. The practice of observing RF is accompanied by changes in sleep and activity patterns, as well as circadian rhythms of hormones such as cortisol, insulin, leptin, ghrelin, growth hormone, prolactin, sex hormones and adiponectin. Understanding intermittent fasting is of direct interest to many religious observers and may have wider potential implications for weight loss strategies. This review examines the existing knowledge on different aspects of energy balance in RF as a common model to learn from, as well as mapping strategies for healthier outcomes in such settings.²⁶

There are many studies on the effects of long-term fasting in current literature. One of these is the work of Stephen Keenan and his colleagues. They compared two types of energy restriction models in their randomized controlled study. They compared the outcomes of fasting twice a week as in the sunnah of the our Prophet Muhammad (S.A.W.) with continuous energy restriction. They noted that high levels of compliance and reported low levels of hunger were seen with both diet methods throughout the intervention period, and that both were well tolerated in the short and medium term. These results revealed that when combined with resistance training, both methods reductions blood lipids, with greater reductions observed in the intermittent fasting group.²⁷

3. Fasting, Autophagy and Detoxification

Before moving on to the subject of autophagy, “Everything has a zakat. The zakat of the body is fasting.”²⁸ The hadith will help us to understand the subject better. In Islam, zakat is a financial worship. Zakat means cleanliness. In other words, the property for which zakat is paid is cleansed of impurities. Indeed, the Prophet said, “Zakat is the dirt (of people’s property).”²⁹

Since zakat is the dirt of property and the property that is zakatized is cleansed, it is possible to say that the Prophet’s saying “Fasting is the zakat of the body” means that the body is cleansed of dirt through fasting. It is also confirmed by scientific studies that fasting accelerates the process of removing toxins from the body. This contributes to healthy cell renewal by providing detoxification. As a matter of fact, autophagy also refers to this.

Japanese scientist Yoshinori Ohsumi scientifically proved the effect of fasting on human health by demonstrating that cells are renewed through fasting. For this proof, he won the Nobel Prize in 2016.^{30,31}

Autophagy is part of the cellular response to prolonged starvation, such as fasting, and other stress situations, such as exercise. It has an important role in embryo development and cell metamorphosis, elimination of bacteria and viruses invading the cell after infection, elimination and regeneration of damaged proteins and organelles in cells, stem cell activation, detoxification and thus slowing down aging. Damage or inadequate functioning of the autophagy mechanism is associated with many diseases such as cancer, diabetes, Parkinson’s, etc. Mutations in autophagy genes can lead to genetic diseases. Along with all these, fasting is one of the most important factors that trigger autophagy.³²

CONCLUSION

In the light of all this information and the literature, we can say that long-term fasting practices such as fasting can of course be practiced with different methods, but its continuity, making it a lifestyle, is very important for the continuation and improvement of health. A regular practice such as fasting can easily ensure this. In this respect, it is clear that fasting practiced regularly with a sense of worship and responsibility will result in a disciplined lifestyle and the protection of material and spiritual health. Therefore, we believe that the recommendation of fasting by modern medicine as well as Islam, and its acceptance as one of the most important preventive medicine practices, is very important for both individual and public health, and for reducing the workload and health costs of hospitals.

ETHICAL DECLARATIONS

Referee Evaluation Process: Externally peer-reviewed.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

Author Contributions: All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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